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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/713,075	11/15/2000	Eric W. Brown	YOR920000807US1	4728

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EXAMINER	
SPOONER, LAMONT M	
ART UNIT	**PAPER NUMBER**
2654	

DATE MAILED: 09/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/713,075	BROWN ET AL.	
	Examiner	Art Unit	
	Lamont M. Spooner	2654	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 December 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *15 November 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 12/22/04 have been fully considered but they are not persuasive.

In response to Applicant's arguments, regarding claim 1 on page 2 para. 4, that "Braden-Harder does not attempt to present answers with context from a relevant passage." The applicant's argument is not claimed. In response to applicant's arguments regarding the definition of an answer. The invention as claimed does not limit the "candidate list of passages of possible answers" to a phrase, a sentence, or a paragraph or a document. Furthermore, the definition of a retrieved document form as source, i.e. the Internet, is not specifically defined as a formal paper, an excerpt, a passage, a paragraph, a snippet, or the like. The Applicant discloses in the specification "from a pool of potential answers which are manually or automatically extracted from a large collection of textual documents." This cannot be limited to a "snippet", as discussed, to an artisan, this may include the entire document, as well as a variety of other interpretations as mention above.

In response to Applicant's arguments, regarding claim 7 and 12, on page 3 para. 1, that "claim 7 requires an answer selection module and an answer presentation module, and claim 12 requires scoring "each possible answer phrase, selecting one or more of the best scoring answer phrases, and displaying the answer phrases to the user." As per claim 7, Braden-Harder provides an answer selection module, (Fig. 2 item 225-search engine, retrieves answers/documents, C.9.lines 3-6-"select any such stored

document", the search engine inherently requiring a selection module to perform selection.) and an answer presentation module (Fig. 2 item 420-Web browser, C.9.lines 25-29-"presents the user with these documents"). As per claim 12, Braden-Harder teaches scoring "each possible answer phrase", "selecting one or more of the best scoring answer phrases, (Fig. 8b-Documents 1, 2, and 3-"Recipe containing artichoke hearts and octopus", "article about octopi", "article about deer", respectively- and respective scores are shown in the Fig. 8b. C.16.line 19-46-, C.16.lines 35-40-documents/answers are displayed to the user-inherently requiring the selection thereof-the documents are interpreted as the answer phrases).

In response to Applicant's arguments, regarding dependent claims 2-6, and 8-11. on page 3, the independent claim rejections are maintained as discussed above, thus the rejection of the previous action is maintained.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 7, 8, 10 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Braden-Harder et al. (herein referred to as Braden-Harder, US Patent No. 5,933,822 Aug. 3, 1999).

As per **claims 1 and 7**, Braden-Harder discloses a method for selecting answers to natural language questions from a collection of textual documents comprising the steps of:

extracting scoring features from a candidate list of passages of possible answers (C.15.lines 25-63-possible answers, C.16.lines 19-47-extracting scoring features);

scoring the possible answers using the extracted features and a feature scoring function (C.16.lines 1-46); and

presenting the best scoring possible answer to the user with context from the passage containing the answer (C.16.lines 35-40).

(The method is implemented on computer apparatus, inherently requiring the modules for performing the above features).

As per **claims 2 and 8**, Braden-Harder disclose all of the limitations of claim 1, upon which claim 2 depends. Braden-Harder further disclose:

the features used to score possible answers consists of one or more of the following features: a semantic type of a current suspected answer (C.16.lines 25-35), a position of the suspected answer among all suspected answers within all document passages, a position of the suspected answer among all suspected answers within the given passage, a number of suspected answers of a given semantic type retrieved within a given passage, a number of words in a suspected answer that do not appear in the user question, a position of the semantic type in the list of potential semantic types for the question, an average distance in words between the beginning of the potential answer and the words in the question that also appear in the passage, a passage

relevance as computed by the information retrieval engine, a frequency of a given potential answer on the list, a semantic relation between words from the question and words from the potential answer, and a strength score that is a function of the relevance score.

As per **claim 10**, Braden-Harder disclose all of the limitations of claim 7, upon which claim 10 depends. Braden-Harder further disclose:

the answer selection module selects the answer with the best score obtained from the feature combination module (C.16.lines 35-40).

As per **claim 11**, Braden-Harder disclose all of the limitations of claim 7, upon which claim 11 depends. Braden-Harder further disclose:

the answer presentation module shows the top scored answer within the context as specified by a user or a system (C.16.lines 35-45).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 3-6, 9 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Braden-Harder in view of Diamond (US Patent No. 6,269,368 filed Oct. 16, 1998).

Braden-Harder and Diamond are analogous art in that they are of the search and retrieval field.

As per **claim 3**, Braden-Harder disclose all of the limitations of claim 2, upon which claim 3 depends. Braden-Harder does not explicitly disclose:

the feature scoring function is a linear combination of weighted features.

However, Diamond teaches the feature scoring function is a linear combination of weighted features (C.15.lines 50-65, C.16.lines 1-49). Therefore, at the time of the invention, it would have been obvious to one ordinarily skilled in the art to combine Braden-Harder and Diamond. The motivation for doing so would have been to predict the optimal score combination regime for a given query (C.15.lines 6-10).

As per **claim 4**, Braden-Harder and Diamond disclose all of the limitations of claim 3, upon which claim 4 depends. Braden-Harder further disclose:

the parameters of the scoring function are manually determined (C.16.lines 25, 26).

As per **claims 5 and 9,** Braden-Harder and Diamond disclose all of the limitations of claim 3, upon which claim 5 depends. Braden-Harder further disclose:

the parameters of the scoring function are learned by a machine learning algorithm (Fig. 8A and 8B, C.17.lines 16-67, C.18.lines 1-24-the parameters, and weighting scheme is machine algorithm determined).

As per **claim 6**, Braden-Harder and Diamond disclose all of the limitations of claim 1, upon which claim 6 depends. Braden-Harder further disclose:

the candidate list of passages of possible answers is obtained from the collection of documents using an information retrieval engine (C.8.lines 30-55).

As per **claim 12**, Braden-Harder discloses computer program product that performs the steps of :

determining a feature scoring function during a training phase either manually or via a machine learning algorithm applied to a set of training questions, corresponding answer passages, and certain extracted features (C.15.lines 25-63-possible answers, C.16.lines 19-47-extracting scoring features, C.16.lines 1-46); and

during an execution phase, extracting certain features from questions and correspond possible answer phrases, applying the feature scoring function determined during the training phase to score each possible answer phrase, selecting one or more of the best scoring answer phrases, and displaying the answer phrases to the user with optional additional context from the answer passages (C.15.lines 25-63-document records/answers, Fig. 8b-Documents 1, 2, and 3-"Recipe containing artichoke hearts and octopus", "article about octopi", "article about deer", respectively- and respective scores are shown in the Fig. 8b. C.16.line 19-46-, C.16.lines 35-40-documents/answers are displayed to the user-inherently requiring the selection thereof-the documents are interpreted as the answer phrases).

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lamont M. Spooner whose telephone number is 571/272-7613. The examiner can normally be reached on 8:00 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on 571/272-7602. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RICHEMOND DORVIL
SUPERVISORY PATENT EXAMINER

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06/07/2005